

REMARKS

Claims 29-54 are rejected.

Claims 29-54 are pending.

Claim 42 was amended to correct an informality.

The Applicants respectfully assert that the amendments to Claim 42 and incorporated by reference in any claims depending there from, are not narrowing amendments made for a reason related to the statutory requirements for a patent that will give rise to prosecution history estoppel. *See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 122 S. Ct. 1831, 1839-40, 62 U.S.P.Q.2d 1705, 1711-12 (2002); 234 F.3d 555, 566, 56 U.S.P.Q.2d 1865, 1870 (Fed. Cir. 2001).

I. REJECTION UNDER 35 U.S.C. §112

The Examiner states that Claims 29 and 42 are rejected under *35 U.S.C. §112*, first paragraph as failing to comply with the written description requirement. The Examiner states that the limitation "configuring the client agent program to have a software-based NAS component to assess unused or under-utilized storage resources in selected distributed devices from the multiplicity distributed devices" is not described in the specification as claimed."

In the Specification, page 61, lines 13-21 is described how the distributed devices 108A-108C (See FIG. 21) "run client agent programs that configure the devices to be capable of mimicking dedicated stand-alone NAS devices. Each of these software-based NAS devices 108A-108C are actually non-dedicated devices that rely on spare and/or unused capabilities of the existing devices to provide NAS services." Since the client agent programs configure the devices to mimic NAS devices by relying on spare and/or unused capabilities of the existing devices, then it follows that the client agent programs must be capable of assessing what capabilities are spare and/or unused (unused or under utilized). The Applicant, therefore, asserts that even though the word "assess" was not specifically recited in this passage, it would have been obvious to one of ordinary skill in the art that the client agent programs must assess unused or under utilized capabilities for it to be able to configure the devices to mimic stand-alone NAS devices using their spare and/or unused capabilities. Assess means to judge, evaluate or appraise and is a descriptive term that describes the function of the client agent program used to configure a software-based NAS device using devices with spare and/or unused capabilities.

The specification, page 63, lines 16-33, further describes user specified constraints adhered to by the client agent program. These constraints may include settable parameters such as maximum allowable percentage of the devices existing storage space. The client agent program must assess storage space available with respect to these constraints. Also described is storage priority levels for handling

storage and storage conflicts. When space is running low (assessment by client agent program) older and less important data or files may be deleted according to algorithms. Further recited are "file and data assessment and storage management schemes by the client agent program that may include but are not limited to" listed algorithms.

Claims 30-41 and 43-54 are rejected as being dependent from rejected Claims 29 and 42.

Therefore, the Applicant asserts that the assessment and the functionality of assessment by the client agent program is described in the specification. Therefore the Applicant asserts that the rejections of Claims 29-54 under 35 U.S.C. §112 are traversed by the above arguments and evidence from the specification of the present invention.

II. REJECTION UNDER 35 U.S.C. §103(a)

The Examiner rejected Claims 29-38 and Claims 42-51 under 35 U.S.C. §102(e) as being unpatentable over U.S. Patent 6,601,101 to *Lee et al.* hereafter (*Lee*) in view of published U.S. Patent application U.S. 2002/0194251 a1 to *Richter et al.* hereafter (*Richter*).

To establish a *prima facie* case of obviousness, the Examiner must meet three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be some reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations.

Claims 29-30 and 42-43. Claim 29 is directed to a method providing network attached storage (NAS) services comprising four steps. In step 1, a distributed processing system is configured by coupling a multiplicity of distributed devices using a network, wherein each of the distributed devices is enabled by a client agent

program to process first workloads for the distributed processing system. In step 2, the client agent program is configured to have a software-based NAS component to assess unused or under-utilized storage resources in selected distributed devices from the multiplicity distributed devices.

The Examiner admits that *Lee* does not teach step 2 of Claim 29. The invention of *Lee* is directed to providing "transparent" access to network attached storage devices. *Lee* is not directed to configuring a distributed processing system by coupling a multiplicity of distributed devices with a network and enabling each of the distributed devices with a client agent program to process workloads for the distributed processing system. *Lee* only recognizes that more and more representations of single devices actually comprise multiple networked connected devices (clusters) that function as a single device from a user interface perspective. *Lee* describes how access to such a device may be made transparent to a user and devices within the cluster may be added or subtracted without affecting the user interface. While *Lee* discusses NAS devices, *Lee* does not teach or suggest that each of his distributed devices are configured with client agent software to appear as a NAS device. *Lee* describes a different paradigm; he has a cluster of storage devices and he is concerned with how to make this cluster appear as a single storage device while keeping the ability to add or subtract devices in the cluster without affecting the user. *Lee* is not configuring a distributed processing system using distributed devices as recited in Claim 29. *Lee* does not enable his distributed devices with a client agent software so the distributed devices can process workloads for the distributed processing system. Further, there is no teaching or suggestion by *Lee* that his methods or system may be modified to arrive at the distributed processing system of Claim 29.

The Examiner cites *Richter* as teaching step 2 of Claim 29. *Richter* discloses systems and methods for the deterministic management of information, such as management of the delivery of content across a network that utilizes computing systems such as servers, switches and/or routers. *Richter* does not teach or suggest

the concept of a client agent program having a NAS based component and assessing unused or under utilized resources in selected distributed devices as recited in Claim 29. To support his argument, the Examiner cites *Richter* paragraphs 0023, 0380, and 0385-0387. In paragraph 0023, *Richter* states that the "disclosed systems and methods may be implemented to achieve system level admission control via resource utilization assessment and prediction using an overload and policy finite state machine module that is also be capable of working with other system modules. Nowhere paragraph 0023 does *Richter* teach or suggest step 2 of Claim 29. In paragraph 0380, *Richter* discusses one implementation of his overload protection policy. In paragraphs 0385-0387, *Richter* discusses how his "resource usage accounting may be performed to track resource utilization for each individual subsystem or processing engine implemented by a requested information management task" and how his "overload and policy finite state machine module" may be implemented. Nowhere in these recitations does *Richter* teach or suggest the concept of a client agent program having a NAS based component and assessing unused or under utilized resources in selected distributed devices as recited in Claim 29.

Lee teaches how to make transparent access to a cluster system configured to look like a single device. *Richter* teaches system and method for resource usage accounting in information management. The Examiner admits that *Lee* does not teach all of the steps in Claim 29. The Applicant has shown that *Richter* does not teach or suggest the concept of a client agent program having a NAS based component and assessing unused or under utilized resources in selected distributed devices. Further, the Examiner has shown no motivation to combine the teachings of *Lee* and *Richter* save his statement that they are "in the same field of endeavor." The Applicant asserts that this is not true; *Lee* teaches transparent access to a cluster system configured to look like a single device and *Richter* teaches system and method for resource usage accounting in information management. Clearly, no one of

ordinary skill in the art would think to combine these two references to arrive at the invention of Claim 29.

Therefore, the Applicant respectfully asserts the rejection of Claim 29 under 35 U.S.C. §103(a) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments.

Claim 30 depends from Claim 29 and contains all the limitations of Claim 29. The Examiner rejected Claims 30 using the same reasoning relative to Claim 29. Therefore, the Applicant respectfully asserts the rejection of Claim 30 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 29.

Claim 42 is an apparatus claim implementing the method steps of Claim 29. The Examiner rejected Claim 42 for the same reasons as Claim 29. Therefore, the Applicant respectfully asserts the rejection of Claim 42 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 29.

Claim 43 is dependent from Claim 42 and contains all the limitations as Claim 42. Claim 43 adds the same limitations to Claim 43 as Claim 30 adds to Claim 29. The Examiner rejected Claim 43 for the same reasons as Claim 29.

Therefore, the Applicant respectfully asserts the rejection of Claim 43 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 29 and 42.

Claims 31 and 44. Claim 31 is dependent from Claim 29 and contains all the limitations as Claim 29. The Applicant has shown that *Lee* and *Richter*, singly or in combination, do not teach or suggest the invention of Claim 29. Claim 31 adds the limitation that at least one of the selected distributed devices is enabled by the client agent program to function as a location distributed device to store location information for data stored by the selected distributed devices. The Examiner states

that *Lee* teaches the limitation of Claim 31 and cites *Lee*, column 4, lines 39-65. The Examiner admitted that *Lee* does not teach or suggest the client agent program of Claim 29, therefore *Lee* cannot teach additional features of the client agent program.

Therefore, the Applicant respectfully asserts the rejection of Claim 31 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 29.

Claim 44 is dependent from Claim 42 and contains all the limitations as Claim 42. Claim 44 adds the limitation that at least one of the selected distributed devices is enabled by the client agent program to function as a location distributed device to store location information for data stored by the selected distributed devices. The Applicant has shown that *Lee* and *Richter*, singly or in combination, do not teach or suggest the invention of Claim 42.

Therefore, the Applicant respectfully asserts the rejection of Claim 44 under 35 U.S.C. §102(e) as being anticipated by *Lee* is traversed by the above arguments and for the same reasons as Claim 42 and Claim 29.

Claims 32 and 45. Claim 32 is dependent from Claim 31 and contains all the limitations as Claim 31. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 31. Claim 32 adds the step of enabling the location distributed device to receive data storage and access requests from the client devices coupled to the network and to direct the client devices to the selected distributed devices storing the requested data.

Therefore, the Applicant respectfully asserts the rejection of Claim 32 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 29 and 31.

Claim 45 is dependent from Claim 44 and contains all the limitations as Claim 44. Claim 45 adds the limitation that the location distributed device is enabled to receive data storage and access requests from the client devices coupled to the

network and to direct the client devices to the selected distributed devices storing the requested data. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 44. Therefore, the Applicant respectfully asserts the rejection of Claim 45 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 42 and 44.

Claims 33 and 46. Claim 33 is dependent from Claim 32 and contains all the limitations as Claim 32. Claim 33 adds the step of managing the NAS services at least in part utilizing at least one centralized server system. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 32. Therefore, the Applicant respectfully asserts the rejection of Claim 33 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 29 and 32.

Claim 46 is dependent from Claim 45 and contains all the limitations as Claim 45. Claim 46 adds the limitation that the NAS services are managed at least in part utilizing at least one centralized server system. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 45. Therefore, the Applicant respectfully asserts the rejection of Claim 46 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 42 and 45.

Claims 34 and 47. Claim 34 is dependent from Claim 33 and contains all the limitations as Claim 33. Claim 34 adds limitation that the centralized server system downloads the NAS component to the client agent programs in the distributed devices. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 33. Therefore, the Applicant respectfully asserts the rejection of Claim 34 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 29 and 33.

Claim 47 is dependent from Claim 46 and contains all the limitations as Claim 46. Claim 47 adds the limitation that the centralized server system downloads the NAS component to the client agent programs in the distributed devices. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 46. Therefore, the Applicant respectfully asserts the rejection of Claim 47 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 42 and 46.

Claims 35 and 48. Claim 35 is dependent from Claim 33 and contains all the limitations as Claim 33. Claim 35 adds limitation that the centralized server system stores location information for data stored in the selected distributed devices and at least in part directs the client devices to the distributed devices storing the requested data. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 33. Therefore, the Applicant respectfully asserts the rejection of Claim 35 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 29 and 33.

Claim 48 is dependent from Claim 46 and contains all the limitations as Claim 46. Claim 48 adds the limitation that the centralized server system stores location information for data stored in the selected distributed devices and at least in part directs the client devices to the distributed devices storing the requested data. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 46. Therefore, the Applicant respectfully asserts the rejection of Claim 48 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 42 and 46.

Claims 36 and 49. Claim 36 is dependent from Claim 35 and contains all the limitations as Claim 35. Claim 36 adds the step of utilizing the centralized server

system to receive data storage and access requests from the client devices and to route data storage and access workloads to the selected distributed devices based in part upon individual capabilities of the selected distributed devices, wherein the individual capabilities are stored in a capabilities database coupled to the centralized server system. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 35. Therefore, the Applicant respectfully asserts the rejection of Claim 36 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 29 and 35.

Claim 49 is dependent from Claim 48 and contains all the limitations as Claim 48. Claim 49 adds the limitation that the centralized server system is utilized to receive data storage and access requests from the client devices and to route data storage and access workloads to the selected distributed devices based in part upon individual capabilities of the selected distributed devices, wherein the individual capabilities are stored in a capabilities database coupled to the centralized server system. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 48. Therefore, the Applicant respectfully asserts the rejection of Claim 49 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claims 42 and 48.

Claims 37 and 50. Claim 37 is dependent from Claim 29 and contains all the limitations as Claim 29. Claim 37 adds the limitation that the network is the Internet. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 29. Therefore, the Applicant respectfully asserts the rejection of Claim 37 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 29.

Claim 50 is dependent from Claim 42 and contains all the limitations as Claim 42. Claim 50 adds the limitation that the network is the Internet. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 42. Therefore, the Applicant respectfully asserts the rejection of Claim 50 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 42.

Claims 38 and 51. Claim 38 is dependent from Claim 29 and contains all the limitations as Claim 29. Claim 38 adds the step of managing storage resources for the selected distributed devices using a storage priority control that facilitates full use of the available amounts of storage resources. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 29. Therefore, the Applicant respectfully asserts the rejection of Claim 38 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 29.

Claim 51 is dependent from Claim 42 and contains all the limitations as Claim 42. Claim 51 adds the limitation that the storage resources are managed for the selected distributed devices using a storage priority control that facilitates full use of the available amounts of storage resources. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 42. Therefore, the Applicant respectfully asserts the rejection of Claim 51 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 42.

Claims 39-41 and Claims 52-54. Claim 39 is dependent from Claim 38 and contains all the limitations as Claim 38. Claim 39 adds the limitation that the storage priority control comprises a parameter selectable through one of the client devices. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 29 and thus Claim 39 that depends from Claim 29. The Examiner states that *Richter* teaches the limitation of Claim 39 and cites four

paragraphs of Richter without specifically pointing out where Richter teaches the limitation of storage priority control recited in Claim 39. Therefore the Applicant asserts that the Examiner has failed to make a prima facie case of obviousness for rejecting Claim 39. Therefore, the Applicant respectfully asserts the rejection of Claim 39 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 29.

Claim 52 is dependent from Claim 51 and contains all the limitations as Claim 51. Claim 52 adds the same limitation to Claim 51 that Claim 39 adds to Claim 38. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 39. The Examiner rejected Claim 52 for the same reasons as Claim 39. Therefore, the Applicant respectfully asserts the rejection of Claim 52 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 39.

Claim 40 is dependent from Claim 39 and contains all the limitations as Claim 39. Claim 40 adds the limitation that the storage priority control comprises storage priority level schemes that prioritize data storage and deletion. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 39. The Examiner states that Richter teaches the limitation of Claim 40 and cites four paragraphs of Richter without specifically pointing out where Richter teaches the limitation of storage priority control recited in Claim 40. Therefore the Applicant asserts that the Examiner has failed to make a prima facie case of obviousness for rejecting Claim 40. Therefore, the Applicant respectfully asserts the rejection of Claim 40 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 39.

Claim 53 is dependent from Claim 52 and contains all the limitations as Claim 52. Claim 53 adds the same limitation to Claim 52 that Claim 40 adds to Claim 39. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach

or suggest the invention of Claim 40. The Examiner rejected Claim 53 for the same reasons as Claim 40. Therefore, the Applicant respectfully asserts the rejection of Claim 53 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 40.

Claim 41 is dependent from Claim 39 and contains all the limitations as Claim 39. Claim 41 adds the limitation that the storage priority control comprises a priority marking directly given to data or files. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 39. The Examiner states that *Richter* teaches the limitation of Claim 41 and cites four paragraphs of *Richter* without specifically pointing out where *Richter* teaches the limitation of storage priority control recited in Claim 41. Therefore the Applicant asserts that the Examiner has failed to make a prima facie case of obviousness for rejecting Claim 41. Therefore, the Applicant respectfully asserts the rejection of Claim 41 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 39.

Claim 54 is dependent from Claim 52 and contains all the limitations as Claim 52. Claim 54 adds the same limitation to Claim 52 that Claim 41 adds to Claim 39. The Applicant has shown that *Lee* and *Richter*, singly or in combination do not teach or suggest the invention of Claim 41. The Examiner rejected Claim 54 for the same reasons as Claim 41. Therefore, the Applicant respectfully asserts the rejection of Claim 54 under 35 U.S.C. §103(b) as being unpatentable over *Lee* in view of *Richter* is traversed by the above arguments and for the same reasons as Claim 41.

III. CONCLUSION

The Applicant has traversed the rejections of Claims 29-54 under 35 U.S.C. § 112 first paragraph as failing to comply with the written description requirement.

The Applicant has traversed the rejections of Claims 29-54 under 35 U.S.C. § 103(a) as being unpatentable over *Lee* in view of *Richter*.

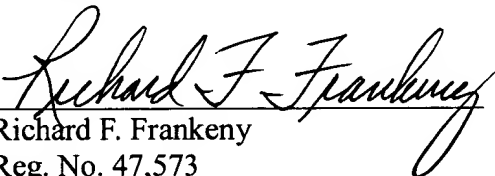
The Applicant respectfully asserts that Claims 29-54 are in condition for allowance and request an early allowance of these claims.

Applicant respectfully requests that the Examiner call Applicant's attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining problems.

Respectfully submitted,

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